

# **INTEGRATED CIRCUIT AND RELATED IMPROVEMENTS**

## **ABSTRACT**

5           An improved integrated circuit and a related system apparatus and method.  
The integrated circuit includes a plurality of logic area or user logic areas; and an  
actively switchable network capable of selectively connecting at least one logic area  
with another logic area. In particular, the plurality of logic areas include an array of  
logic-gates or logic-blocks or custom logic which form functional blocks. The  
10 integrated circuit can provide a chip-architecture where the functional blocks are  
specific hardware functional blocks, hardware functional blocks that are  
parameterized, and/or programmable functional blocks including programmable  
processors. Also, the functional blocks can act as objects requesting and providing  
services to other objects on the actively switchable network so that, when a functional  
15 block is a programmable processor, the functional block optionally implements  
objects, with the programmable processor making one, some or all objects thereof  
visible to other objects connected to the actively switchable network.

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